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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,055

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Michael Harris

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02/11/2008

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EXAMINER

BRAINARD, TIMOTHY A

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/529,055	Applicant(s) HARRIS ET AL.	
	Examiner TIMOTHY A. BRAINARD	Art Unit 3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Finality of previous office action is withdrawn.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 6 and 10 recite the limitation "second optical arrangement" in line 2 of claim 6, line 5 of claim 10, line 1 of claim 7, line 2 of claim 8, and line 2 of claim 9, but none of the preceding claim from which claim 6-10 depend draw reference to a first optical arrangement.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 6, 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Schneider et al (US 4963017). Schneider teaches (claim 1) a transmit channel for forming a variable focus transmit beam (fig 6a, item 29), a receive channel for forming a variable focus receive beam (fig 6a, 35), the device is arranged such that all points of focus of the transmit beam and all points of focus of the receive beam fall on a common axis within the operable distance range of the device (fig 6a and 6b, and col 4 line 67 to

col 5, line 21), (claim 18) the channels vary the focus by movement along a movement axis and said movement axes are not parallel (col 5, lines 15-40), (claim 6) an optical arrangement configured to form the focused receive beam and having at least one lens (fig 6a, item 27), (claim 19) movement axes define an acute angle (fig 6a and 6b).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider as applied to claim 1 above, and further in view of Schneider et al (US 5082362). Schneider teaches the transmit channel comprising an optical arrangement configured to form the focused transmit beam having a lens (fig 15a item 152). It would have been obvious to modify Schneider to include the transmit channel comprising an optical arrangement configured to form the focused transmit beam having a lens because it is one of multiple ways to transmit with no new or unexpected result.

7. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider in view of Schneider as applied to claim 2 above, and further in view of Bowers (US 2003/0184729). Bowers teaches (claim 3) a laser radiation passed to the first optical arrangement via an optical fiber (fig 2, item 215). It would have been obvious to modify Schneider in view of Schneider to include the laser radiation passed to the first optical arrangement via a transmit optical fiber because it is one of multiple design

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choices with new or unexpected result. Schneiter (362) (claim 4 and 5) teaches the focus of the transmit beam is adjustable by variation of the relative position of an optical arrangement with respect to a linearly translatable exit aperture of the optical fiber (fig 15c and col 10, lines 36-52). It would have been obvious to modify Schneiter (017) to include the focus of the transmit beam is adjustable by variation of the relative position of an optical arrangement with respect to a linearly translatable exit aperture of the transmit optical fiber cable because it is one of multiple design choices with no new or unexpected result.

8. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneiter as applied to claim 6 above, and further in view of Bowers. Bowers teaches (claim 7) an optical arrangement is configured to couple the received radiation in to a receive fiber (fig 2, item 229). It would have been obvious to modify Schneiter to include because an optical arrangement is configured to couple the received radiation in to a receive fiber it is one of multiple methods to transmit light to a detector with no new or unexpected results. Schneiter (017) teaches (claim 8-10) the focus of the receive beam is adjustable by variation of the relative position of the second optical arrangement with respect to the entry aperture of the receive optical fiber (col 3, lines 11-19), (claim 9) the entry aperture is linearly translatable with respect to the second optical arrangement (col 3, lines 11-19), (claim 10) the exit aperture of the transmit optical fiber is linearly translatable along the optical axis of the first optical arrangement, and the entry aperture of the receive optical fiber is linearly translatable along an axis arranged at a

predetermined angle to the optical axis of the second optical arrangement (fig 6a, item 34 and fig 6a, item 39).

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider in view of Bowers as applied to claim 10 above, and further in view of Carlson (US 3554646). Carlson teaches the predetermined angle calculated from the inverse tangent of the ratio of the separation of transmit channel and receive channel (col 3, lines 40-43). It would have been obvious to modify Schneider in view of Bowers to include the predetermined angle calculated from the inverse tangent of the ratio of the separation of transmit channel and receive channel because it is one of multiple design choices with no new or unexpected results.

Claim 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider as applied to claim 1 above, and further in view of Tocker et al (US 5280332). Tockers teaches (claim 12) a laser device with at least one additional receive channel (figure 1 item 64 and 64'). It would have been obvious to modify Schneider to include a laser device with at least one additional receive channel where the focus of the additional receive beam is arranged to intersect the focus of the transmit beam within operable range of the device because it is one of multiple design choices with no new or unexpected results.

Claim 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider as applied to claim 1 above, and further in view of Holton (US 2002/0075472). Holton teaches of the device configured to interact with a soft target or a distributed target (paragraph 3). It would have been obvious to modify Schneider to include the

device configured to interact with a soft target or a distributed target because it is one of multiple design choices with no new or unexpected results.

Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider as applied to claim 1 above, and further in view of Evans et al (US 6323941). Evans teaches a transmit beam formed from radiation having a wavelength in the region of 1.55 micrometers (col 10 39-31). It would have been obvious to modify Schneider to include a transmit beam formed from radiation having a wavelength in the region of 1.55 micrometers because it is one of multiple design choices with no new or unexpected results.

Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider as applied to claim 19 above, and further in view of Carlson (US 3554646). Carlson teaches an optical lens with a focal length F , one of said channels is displaced from the other of said channels by a distance S , and θ is defined by the equation $\tan \theta = S/F$ (col 3, lines 40-43). It would have been obvious to modify Schneider to include an optical lens with a focal length F , one of said channels is displaced from the other of said channels by a distance S , and θ is defined by the equation $\tan \theta = S/F$ because it is one of multiple design changes with no new or unexpected results.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al in view of Carlson (US 3554646). Schneider teaches (claim 1) a transmit channel for forming a variable focus transmit beam (fig 6a, item 29), a receive channel for forming a variable focus receive beam (fig 6a, 35), the device is arranged such that all points of focus of the transmit beam and all points of focus of the receive beam fall

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on a common axis with in the operable distance range of the device (fig 6a and 6b, and col 4 line 67 to col 5, line 21). Schneider does not teach a an optical lens with a focal length F , on of said channels is displaced from the other of said channels by a distance S , and θ is defined by the equation $\tan \theta = S/F$. Carlson teaches a an optical lens with a focal length F , on of said channels is displaced from the other of said channels by a distance S , and θ is defined by the equation $\tan \theta = S/F$ (col 3, lines 40-43). It would have been obvious to modify Ehbets to include an optical lens with a focal length F , on of said channels is displaced from the other of said channels by a distance S , and θ is defined by the equation $\tan \theta = S/F$ because it is one of multiple design change with no new or unexpected results.

Response to Arguments

Applicant's arguments with respect to claims 1-16 and 18-21 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY A. BRAINARD whose telephone number is (571) 272-2132. The examiner can normally be reached on Monday - Friday 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. A. B./
Examiner, Art Unit 3662

/Thomas H. Tarcza/
Supervisory Patent Examiner, Art Unit 3662